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# FlowMotion Technology

Moving the standard to personalized care.

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**Moving the standard to personalized care.**

**Every patient is unique. Every organ is different. Every disease is specific. That means a one-size-fits-all exam protocol is not ideal for achieving the best imaging quality and can influence treatment decisions. And a tailored approach usually requires additional time, which may affect revenue.**

With conventional PET/CT scanners, examinations are performed in sequential bed positions, alternating between acquisition and patient table motion. Scanning is restricted by a fixed bed size, resulting in potentially higher CT dose, patient discomfort and the potential for patient motion and related image degradation. FlowMotion™ technology overcomes these challenges by enabling planning and scanning based on a single continuous motion of the patient table.

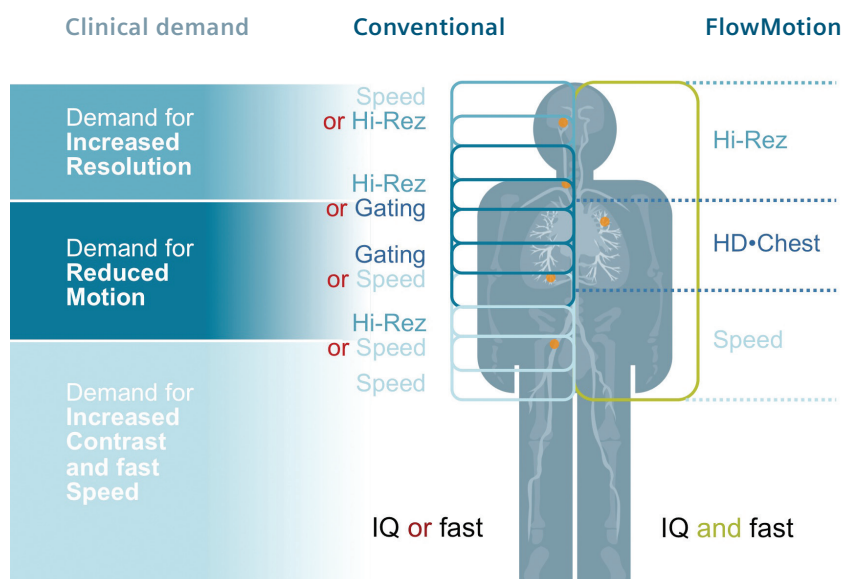
With FlowMotion technology you can personalize patient exams, improving quality while helping optimize your workflow. Simple and precise range planning eliminates over-scanning and the associated CT radiation exposure, and FlowMotion's sense of continuous progress provides a more comfortable exam experience for patients.

## Personalize patient care

FlowMotion lets you develop and save protocols based on clinical indication so that they are easily incorporated into the clinical routine for any patient up to 500 pounds, enabling reliable visualization of disease. Continuous bed motion and the ability to target specific organs let you perform a personalized scan. Simply load the standardized, indication-based protocol, adjust it to patient anatomy and start the scan.

For example, imaging of head and neck lesions requires very high resolution. FlowMotion allows you to reduce

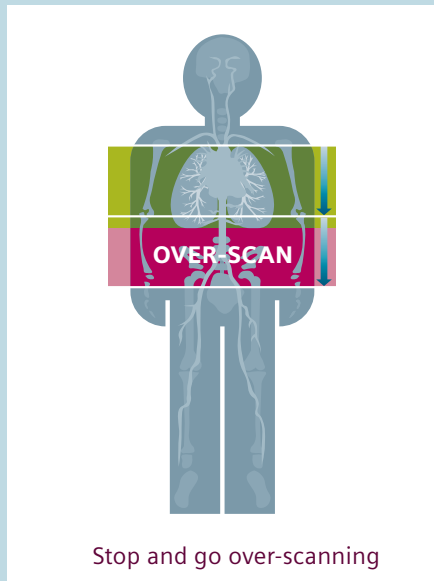
the bed speed precisely in the head and neck region and to provide a high-resolution reconstruction. Whereas imaging of lung or liver lesions is subject to motion from breathing, which can reduce detectability. Because FlowMotion enables you integrate motion management with respiratory gating in a single scan, you can improve your small-lesion detectability even in areas affected by motion. A 2014 study, for example, found that 13.8% more lesions were detected with HD•Chest, Siemens' amplitude-based gating for PET, than with static reconstruction.<sup>3</sup>



## Reduce Scanning Dose

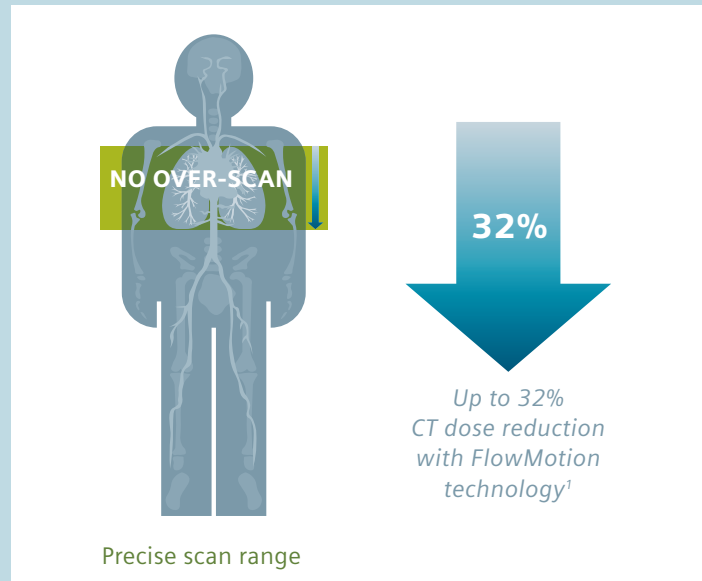
Planning scans with conventional, sequential bed positions can be time consuming and may lead to CT over scanning to cover the desired scan range. Since FlowMotion allows easy anatomy-based planning, only the desired area is scanned, enabling you to minimize dose and help maximize efficiency.

### Conventional PET/CT



*Sequential bed dimensions often force PET and CT to expose an area beyond what is needed*

### FlowMotion



*Precise planning ensures only the targeted tissue is irradiated, eliminating over-scanning*

## Provide an Optimal Patient and User Experience

Patients undergoing a stop-and-go exam sense when a scan is not progressing, which may make the scan seem longer and cause patient motion and discomfort. FlowMotion technology's bed motion gives the patient a continuous sense of progression and improves exam satisfaction.

**“The scans are so comfortable that some patients fall asleep during acquisitions. Those who do, tend to sleep through the entire examination.”<sup>2</sup>**

— Alban Bailliez, MD,  
Nuclear Medicine Physician, Polyclinique du Bois Lille, France

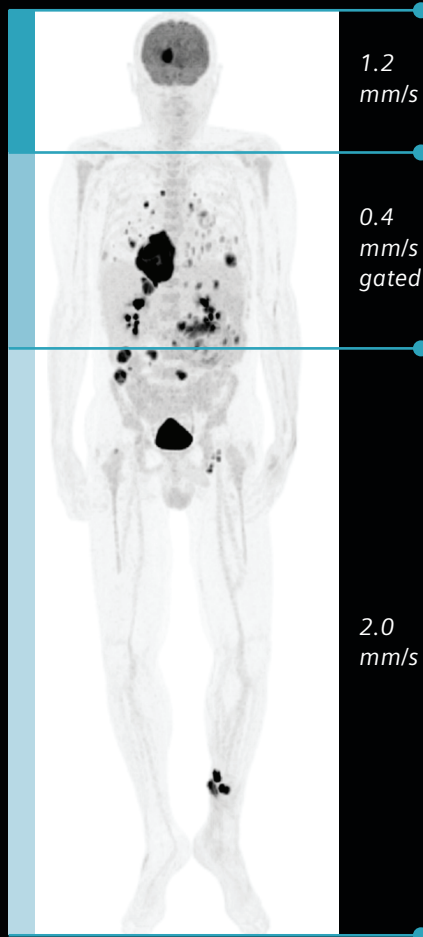


# FlowMotion<sup>4,5</sup> technology enables individual



## Metastatic breast carcinoma

Kantonsspital Baselland,  
Liestal, Switzerland



## Melanoma brain

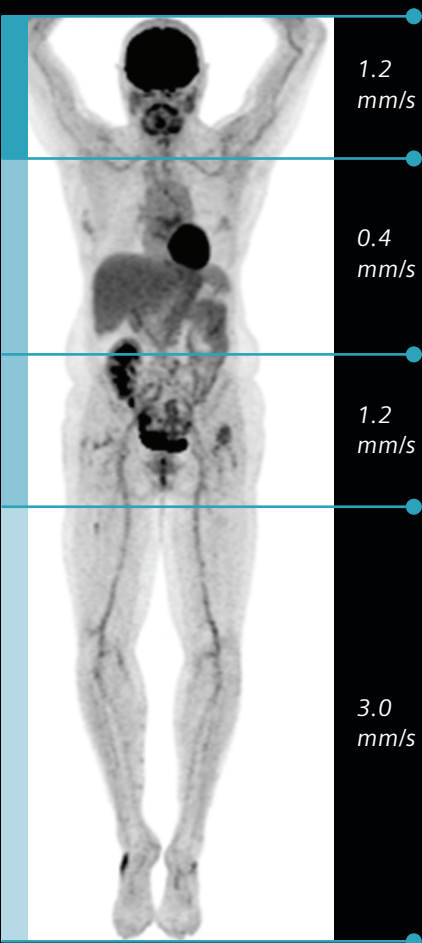
University of Tennessee,  
Knoxville, Tennessee, USA



## Melanoma

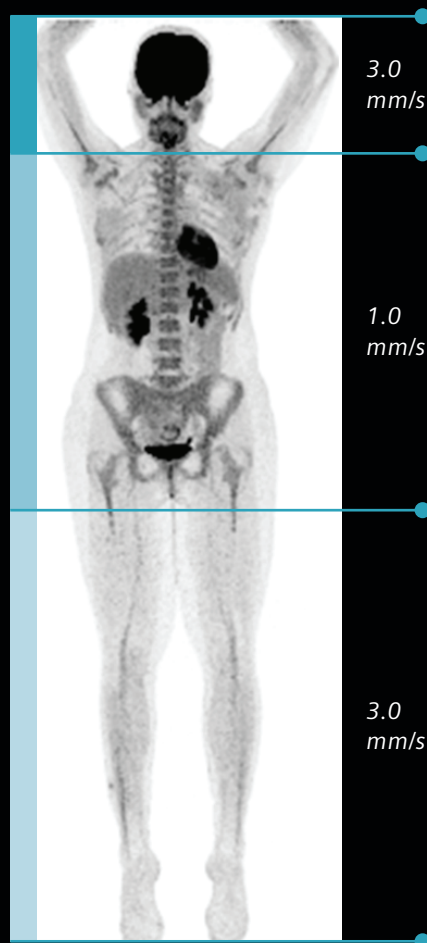
University of Tennessee,  
Knoxville, Tennessee, USA

# Standardized protocols and improved workflow.



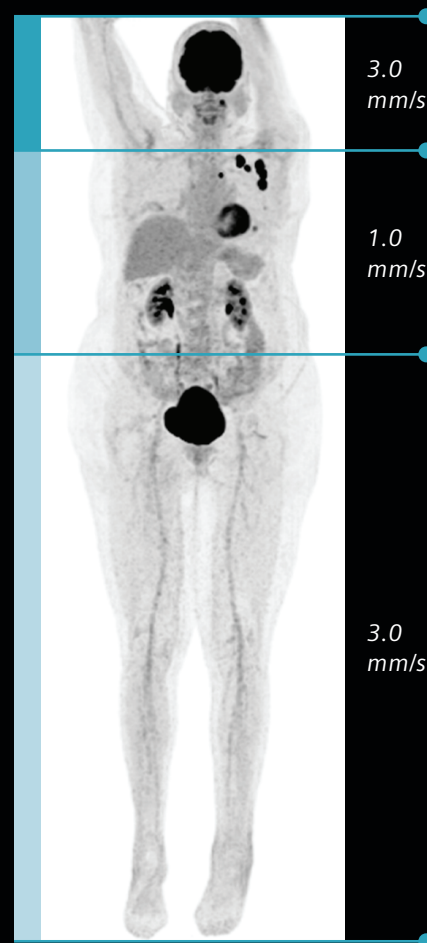
## ● Lung lesion

Kantonsspital Baselland,  
Liestal, Switzerland



## ● Morbus Hodgkin

Kantonsspital Baselland,  
Liestal, Switzerland



## ● Lung Cancer

Kantonsspital Baselland,  
Liestal, Switzerland



## Siemens Healthcare Headquarters

Siemens Healthcare GmbH  
Henkestr. 127  
91052 Erlangen  
Germany  
Phone: +49 9131 84-0  
[siemens.com/healthcare](http://siemens.com/healthcare)

## Global Business Line

Siemens Medical Solutions USA, Inc.  
Molecular Imaging  
2501 North Barrington Road  
Hoffman Estates, IL 60192  
USA  
Phone: +1 847 304-7700  
[siemens.com/mi](http://siemens.com/mi)

## Disclaimers

<sup>1</sup> Simulating the worst case scenario that the desired scan length is slightly longer than one-bed field-of-view, requiring the user to perform a two-bed acquisition.

<sup>2</sup> The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

<sup>3</sup> Van Der Gucht, et al. "Impact of a new respiratory amplitude-based gating technique in evaluation of upper abdominal PET lesions." Eur Radiol., Mar, 83(3): 509-15, 2014

<sup>4</sup> Currently under development and not available for sales in the US or any other country. Future availability cannot be guaranteed.

<sup>5</sup> Images from Biograph mCT Flow

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